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UNDESCRIBED CRANE-FLIES IN THE PARIS NATIONAL MUSEUM (TIPULIDÆ, DIPTERA) : PART IV, ASIATIC SPECIES,

BY CHARLES P. ALEXANDER,

Ph. D., Urbana, III., U.S.A.

The species of *Tipulidæ* described in the present instalment are almost entirely from China and Indo-China. The types of the species are contained in the collection of the Paris National Museum.

SUBFAMILY LIMNOBILIN.E.

TRIBE HEXATOMINI.

GENUS Eriocera Macquart.

Eriocera davidi nov. sp.

Allied to *E. hilpa* (Walk.); general coloration velvety black; wings dark brown with a rather narrow white crossband before the cord, extending across cells *ist* R_1 , R and M_j ; r on R_2 about three times its length beyond the fork; abdomen with the bases of tergites two, four and five glabrous, blue-grey.

Male. - Length, 17 mm.; wing, 14 mm.

Rostrum and palpi black. Antennæ dark brown; flagellum broken. Head black.

Mesonotum deep velvety black throughout. Halteres brown, the knobs dark brown. Legs with the coxae velvety black; trochanters brownish black; remainder of the legs black. Wings dark brown, the anal cells paler; a rather narrow white band before the cord, occupying cell *ist* R_1 but barely attaining vein R_1 , widest in cell R where it reaches the fork of R_s , narrowed again in cell M, reaching vein Cu and appearing as a faint area in cell Cu; veins dark brown. Venation : Sc_1 extending to just beyond r, Sc_2 some distance from the tip of Sc_1 , just beyond the fork of R_{2+3} , Sc_1 alone nearly equal to the deflection of Cu_1 ; R_{2+3} shorter than the first section of R_2 ; r on R_2 about three times its length beyond

the fork; basal deflection of R_{4+5} about two and one-half r-m; cell M_1 lacking; basal deflection of Cu_1 far ont near the distal end of cell 1st M_2 , the fusion of M_3 and Cu_1 about one-third m; Cu_2 shorter than the deflection of Cu_1 .

Abdomen velvety black; a conspicuous ring on basal two-fifths of tergite two and at bases of tergites four and five glabrous, covered with a microscopic blue-grey bloom, that of the second segment being more nacreous.

Habitat. - West China.

Holotype, J, Province of Se-tchouen (Sze-chuen), 1875 (Père David).

Type in the collection of the Paris National Museum.

Eriocera davidi is related to E. hilpa (Walk.). In this latter species, tergites two to six have the basal half or more subglabrous and shiny. In its abdominal pattern, E. davidi agrees well with E. sinensis Edw., likewise from Se-tchouen, but this species has the wing-base yellow as in nepalensis Westw. The Fly is named in honor of the collector, Père David.

Eriocera hilpoides nov. sp.

Male. — Length, 13 mm.; wing, 10.5 mm.

Closely related to *E. davidi*, differing as follows :

Size smaller. Wings broader, dark brown, the anal cells faintly darker; the white band before the cord completely crosses cell Cu into the end of cell *ist* A; veins much paler brown, difficult to discern against the membrane. Venation : Sc_1 ending a short distance beyond r; Sc_2 a short distance before the fork of R_{2+3} , Sc_1 shorter than the deflection of Cu_1 ; R_{2+3} about twice the first section of R_2 ; r on R_2 only about one and one-half its length beyond the fork; basal deflection of R_{4+5} more than three times r-m; cell *ist* M_2 lacking; inner end of cell *ist* M_2 arcuated, about as long as the second section of M_{1+2} ; fusion of M_3 and Cu_1 about equal to m.

Habitat — West China.

Holotype, J, Province of Se-tchouen (Sze-chuen), 1875 (Père David).

Type in the collection of the Paris National Museum.

Eriocera hilpoides is a member of the hilpa group, closely allied to E. davidi as described above but distinct in the venation and pattern of the wings.

Eriocera morula nov. sp.

General coloration brownish black; ovipositor and terminal segment obscure orange; wings dark brown, the apical cells and an ill-defined region before the cord indistinctly paler; cell M_1 present.

Female. - Length, 18.5 mm.; wing, 14.5 mm.

Rostrum, palpi and antennæ black. Head black.

Thorax discolored. Præscutum dark brown with three black stripes, divided. Remainder of the mesonotum and the pleura dark brownish black, possibly dusted with gray in fresh specimens. Halteres brownish black. Legs black. Wings conspicuously dark brown, the apical region in cells R_5 , M_1 and 2nd M_2 paler; a pale suffusion before the cord in cells 2nd R_1 , R, M, Cu and the Anal cells; veins dark brown. Venation : Sc long, Sc_1 ending opposite r; Sc_2 some distance from the tip ot Sc_1 , the latter aloue being subequal to or a little longer than R_{2+3} ; first section of R_2 subequal to or about one-third longer than R_{2+3} ; distal section of R_1 about one-half longer than the first section of R_2 ; R_{2+3} a little shorter than the deflection of R_{4+5} ; cell M_1 present, a little shorter than its petiole; basal deflection of Cu_1 just before midlength of cell 1st M_2 ; Cu_2 from one-half to two-thirds the deflection of Cu_1 .

Abdomen black, the segments uniformly dull; ovipositor and the genital segment obscure orange. Ovipositor with the tergal valves very elongate, acicular.

Habitat. - West China.

Holotype, φ , Province of Se-tchouen (Sze-chuen), 1875 (Père David).

Type in the collection of the Paris National Museum.

Eriocera abdominalis nov. sp.

General coloration black; scutellum obscure brownish orange; femora yellow, narrowly tipped with black; wings uniformly deep reddish brown; cell M_1 lacking; abdomen depressed, the segments yellowish orange with conspicuous \bot -shaped black markings.

Sex ? Wing, 12.6 mm.

Rostrum black, the palpi brownish black. Antennæ with the scape obscure yellowish brown; flagellum broken. Head black, the lateral and anterior margins of the vertical tubercle obscure reddish brown.

Pronotum black, the scutellum more obscure reddish brown. Meso-

notum black, the extreme cephalic and caudal portions of the præscutum with a capillary reddish brown median vitta; scutellum and the anterior medium area of postnotum conspicuously obscure brownish orange; remainder of postnotum dark brown. Pleura black, the posterior sclerites dark brown. Halteres brownish black, the base of the stem a little paler. Legs with the coxae and trochanters black; only the middle legs present; femora yellow, the tips narrowly but conspicuously blackened; tibiæ dark brown, the tips narrowly and indistinctly darker; tarsi dark brown. Wings uniformly tinged with deep reddish brown; veins pale brown. Venation : Se_1 ending opposite the fork of R_{2+3} ; r on R_2 approximately two times its length beyond the fork and on R_1 between three and four times its length from the tip; R_{2+3} a little longer than the deflection of R_{4+5} ; *r*-*m* about one-half longer than the deflection of R_{4+5} ; inner ends of cells R_5 and 1st M_2 about in alignment; celle M_1 lacking; basal deflection of Cu_1 at about one-third the length of cell 1st M_2 ; Cu_2 about one-half the deflection of Cu₁.

Apex of abdomen broken, the intermediate segments broad and flattened as in *E. lativentris* Bezzi; abdominal segments very conspicuously colored, being brilliant orange-yellow, each with about the caudal half brownish black, sending a conspicuous median stem to the anterior margin of the segment restricting the orange color to the anterior lateral margins of the segments.

Habitat. --- Southeast China.

Holotype, Sex?, Province of Kiang-si, 1875 (Père David). Paratopotype, S.

Type in the collection of the Paris National Museum.

Eriocera abdominalis is a very conspicuous fly. By Edward's key to the Old World species of *Eriocera* (1921), it runs ont at couplet 54.

SUBFAMILY TIPULIN.E.

TRIBE TIPULINI.

GENUS Pselliophora Osten Sacken.

Pselliophora cavaleriei nov. sp.

General coloration black; basal four abdominal segments orange; wings with a faint brownish tinge; cell $1st R_1$, the cells beyond the cord and cell 2nd A paler; stigma and a faint seam at r-m dark brown; male hypo-

pygium with a conspicuous globular appendage on the caudal margin of the eighth sternite.

Male. - Length, 13 mm.; wing, 14.5 mm.

Rostrum and palpi black. Antennæ dark brownish black throughout. Head black.

Prothorax and mesothorax entirely deep velvety black. Halteres brownish black. Legs with the coxæ and trochanters black; femora black, the bases obscure yellow, least distinct on the fore femora, on the posterior femora very broad and conspicuously bright yellow, occupying a little more than the basal half; remainder of the legs black. Wings with a faint brown tinge; cell 1st R_1 , the cells beyond the cord and cell and A paler, more grayish; the small, oval stigma dark brown; a faint brown cloud along the deflection of R_{4+5} and $r-m_j$; veins dark brown. Venation : Rs arcuated; cell M_1 with a short petiole, this a little longer than $r-m_j$: m-cu distinct.

Abdomen with segments one to four orange; segments five to nine black. The hypopygium is badly distorted by flattening. Ninth tergite with a \bigvee -shaped notch, the lobes with abundant long black hairs. Pleural appendages comparatively small, the surface microscopically reticulate, the most conspicuous element a heavily chitinized, shiny black blade that terminates in a short, curved hook, near the base with a smaller, acute point directed laterad. Outer pleural appendage very long and slender, directed dorsad, the base on the cephalic side densely clothed with short yellow hairs. Caudal margin of the eighth sternite with a conspicuous subglobular appendage that is covered with short hairs.

Habitat. - Southwest China.

Holotype, J, Province of Kouy-tchéon (Kwei-chow), San Chouen, September 1913 (Père Cavalerie).

Type in the collection of the Paris National Museum.

This very distinct *Pselliophora* is named in honor of the collector.